

**BILL NO. 2002-108**

**ORDINANCE NO. 5528**

AN ORDINANCE TO ADOPT THE 2000 EDITION OF THE UNIFORM MECHANICAL CODE AND CERTAIN APPENDICES, TOGETHER WITH AMENDMENTS THERETO, AS THE CITY'S MECHANICAL CODE, AND TO PROVIDE FOR OTHER RELATED MATTERS.

Proposed by: Paul K. Wilkins,  
Director of Building and Safety

Summary: Adopts the 2000 Edition of the Uniform Mechanical Code and certain Appendices, together with amendments thereto, as the City's Mechanical Code.

THE CITY COUNCIL OF THE CITY OF LAS VEGAS DOES HEREBY ORDAIN  
AS FOLLOWS:

SECTION 1: Title 16, Chapter 24, Section 10 of the Municipal Code of the City of Las Vegas, Nevada, 1983 Edition, is hereby amended to read as follows:

**16.24.010:** Those certain documents, three copies of each being on file in the office of the City Clerk, and designated as follows, are adopted by reference and made a part of this Code, to the same effect as if set out herein in full:

(A) Uniform Mechanical Code, [1997] 2000 Edition, including [its Appendices,] Appendix A and Appendix B, Chapter 13, designated as Part 1 of this Chapter; and

(B) A document entitled the "Southern Nevada [1997] 2000 Mechanical Code Amendments," as modified herein, adding to, deleting from and amending the Uniform Mechanical Code, [1997] 2000 Edition, designated as Part 2 of this Chapter.

SECTION 2: The document entitled the "Southern Nevada 2000 Mechanical Code Amendments" is hereby modified as set forth in Section 3 of this Ordinance.

SECTION 3: The amendment concerning Chapter 1-Administration is modified so that it reads:

Chapter 1 Administration is deleted in its entirety except Sections 101, 102 and 103.

SECTION 4: The Uniform Mechanical Code, 1997 Edition, and the Southern Nevada 1997 Mechanical Code Amendments are hereby repealed in their entirety.

SECTION 5: If any section, subsection, subdivision, paragraph, sentence, clause or phrase in this ordinance or any part thereof, is for any reason held to be unconstitutional, or invalid



1 or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or  
2 effectiveness of the remaining portions of this ordinance or any part thereof. The City Council of the  
3 City of Las Vegas hereby declares that it would have passed each section, subsection, subdivision,  
4 paragraph, sentence, clause or phrase thereof irrespective of the fact that any one or more sections,  
5 subsections, subdivisions, paragraphs, sentences, clauses or phrases be declared unconstitutional,  
6 invalid or ineffective.

7 SECTION 6: Whenever in this ordinance any act is prohibited or is made or declared  
8 to be unlawful or an offense or a misdemeanor, or whenever in this ordinance the doing of any act is  
9 required or the failure to do any act is made or declared to be unlawful or an offense or a  
10 misdemeanor, the doing of such prohibited act or the failure to do any such required act shall  
11 constitute a misdemeanor and upon conviction thereof, shall be punished by a fine of not more than  
12 \$1,000.00 or by imprisonment for a term of not more than six months, or by any combination of such  
13 fine and imprisonment. Any day of any violation of this ordinance shall constitute a separate offense.

14 SECTION 7: All ordinances or parts of ordinances or sections, subsections, phrases,  
15 sentences, clauses or paragraphs contained in the Municipal Code of the City of Las Vegas, Nevada,  
16 1983 Edition, in conflict herewith are hereby repealed.

17 PASSED, ADOPTED and APPROVED this 6<sup>th</sup> day of November, 2002.

18 APPROVED:

19 By   
20 OSCAR B. GOODMAN, Mayor

21 ATTEST:

22   
23 BARBARA JO RONEMUS, City Clerk

24 APPROVED AS TO FORM:

25 Val Steed 9-19-02  
26 Date

1 The above and foregoing ordinance was first proposed and read by title to the City Council on the  
2 2<sup>nd</sup> day of October, 2002, and referred to a committee for recommendation; thereafter the  
3 committee reported favorably on said ordinance on the 6<sup>th</sup> day of November, 2002, which was a  
4 regular meeting of said Council; that at said regular meeting, the proposed ordinance was read by  
5 title to the City Council as first read and adopted by the following vote:

6 VOTING "AYE": Mayor Goodman, Councilmembers Reese, M. McDonald, Brown, Weekly  
and Mack

7 VOTING "NAY": None

8 EXCUSED: L. B. McDonald

9 ABSTAINED: None

10 APPROVED:

11  
12   
\_\_\_\_\_  
OSCAR B. GOODMAN, Mayor

13 ATTEST:

14   
15 BARBARA JO RONEMUS, City Clerk

**SOUTHERN NEVADA 2000  
MECHANICAL CODE AMENDMENTS**

## PREFACE

This document comprises the Mechanical Code Amendments to the 2000 Uniform Mechanical Code as published by the International Association of Plumbing and Mechanical Officials. It was developed by the City of Las Vegas to be adopted by reference. These provisions are not code unless adopted and codified by governmental jurisdictions. These amendments are not intended to prevent the use of any material or method of construction not specifically prescribed herein, provided any alternate has been approved and its use authorized by the building official. This document is available to be adopted as code by any jurisdiction without permission or approval from the City of Las Vegas.

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### Chapter 1 – Administration

**Chapter 1 Administration** is deleted in its entirety except Sections 102 and 103.

Section 103 is amended by the addition of a new paragraph at the end of the section to read as follows:

#### 103.0 Scope

The provisions of this code shall apply to the erection, installation, alteration, repair, relocation, replacement, addition to, use or maintenance of any heating, ventilating, cooling, refrigeration

systems, incinerations or other miscellaneous heat-producing appliances within this jurisdiction.

Additions, alteration, repairs and replacement of equipment or systems shall comply with the provisions for new equipment and systems, except as otherwise provided in Section 104.0 of this code.

Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

The design and testing of equipment regulated by this code shall be subject to the approval of the Administrative Authority.

The standards contained in Appendix A shall be considered as part of this code. Appendix B contains recommended practices which shall not apply unless specifically adopted. Appendix C contains gas venting tables and is intended to serve only as a guide.

Appendix D contains conversion tables and a table for determining the appropriate minimum thickness for carbon steel metal.

Appendix B Chapter 13 is specifically adopted.

## **205 – Definitions – C**

Add a new definition to be placed in alphabetical order to read:

**Combustible Construction** – Combustible construction shall mean work with any building or structure classified as Type III-A, Type II-B; Type IV – Heavy Timber; Type V-A; or Type V-B as defined in the Building Code.

## **217 – Definitions – 0**

### **Section 217.0 Occupancy Classification**

Section 217 is amended by deleting the entire definition of "Occupancy Classification" and replacing it with the definition that follows:

**OCCUPANCY CLASSIFICATION.** When specific occupancies are referenced in this code, refer to the locally adopted building code for equivalent occupancy classifications.

### **304.6 LPG Appliances**

Delete Section 304.6 in its entirety. (Note: See LPG State Regulations)

### **304.8 – Plastic Pipe Use**

Add a new section 304.8 to read:

**304.8 Plastic Pipe Use.** Plastic materials listed for use in mechanical equipment are acceptable as an alternate to other approved materials for use in installations in combustible construction only.  
**EXCEPTION:**

- (1) Approved plastic control tubing of mechanical equipment may be used in buildings or structures of all construction classifications when installed in accordance with their listings.
- (2) When restricted by other sections of this code.

### **504.3.1 – Moisture Exhaust Ducts.**

Section 504.3.1 is amended by the addition of an exception to read:

**504.3.1 Moisture Exhaust Ducts.** Moisture exhaust ducts shall terminate on the outside of the building and shall be equipped with a backdraft damper. Screens shall not be installed at the duct termination. Ducts for exhausting clothes dryers shall not be connected or installed with sheet metal screws or other fasteners which will obstruct flow. Clothes dryer moisture-exhaust ducts shall not be connected to a gas vent connector, gas vent or chimney. Clothes dryer moisture exhaust ducts shall not extend into or through ducts or plenums.

**Exception:** When exhaust ducts terminate on a roof, backdraft dampers are not required.

### **504.3.2.2 – Length limitation**

Section 504.3.2.2 is amended by the addition of an exception to read:

**504.3.2.2 Length Limitation.** Unless otherwise permitted or required by the dryer manufacturer's installation instructions and approved by the Administrative Authority, domestic dryer moisture exhaust ducts shall not exceed a total combined horizontal and vertical length of fourteen (14) feet (4263 mm), including two (2) ninety degree (90°)



(1.57 rad) elbows. Two (2) feet (610 mm) shall be deducted for each ninety degree (1.57 rad) elbow in excess of two.

**Exception.** Lengths may be increased when justified by calculations prepared by a Nevada Licensed Mechanical Engineer.

#### **508.4 – Duct Enclosures**

Section 508.4 is amended by the addition of a new sentence to read:

A grease duct serving a Type I hood which penetrates a ceiling, wall or floor shall be enclosed in a duct enclosure from the point of penetration. A duct may only penetrate exterior walls at locations where unprotected openings are permitted by the Building Code. Duct enclosures shall be constructed as the Building Code requires shaft enclosures to be constructed. Duct enclosures shall be of at least one-hour fire-resistive construction in all buildings and shall be of two-hour fire-resistive construction Types I & II fire-resistive buildings. The duct enclosure shall be sealed around the duct and the point of penetration and vented to the exterior through weather-protected openings. The enclosure shall be separated from the duct by at least three (3) inches (76 mm) and not more than twelve (12) inches (305 mm) and shall serve a single grease exhaust duct system. The structural supports for a duct enclosure shall be outside the enclosure.

#### **509.11 – Performance Test**

Section 509.11 is amended to read as follows:

**509.11 Performance Test.** Upon completion and before final approval of the installation of a ventilation system serving commercial food heat – processing equipment, a performance test shall be performed to verify the rate of airflow and proper operation as specified in this chapter. The permittee shall furnish the necessary test equipment and devices to perform the tests and shall provide the jurisdiction with an accurate complete, and signed test report. The report shall be on a form supplied by the jurisdiction or on a form containing equivalent information. At the discretion of the building official, the performance test may be required to be witnessed by a Building Department representative, performed by an approved third party testing agency.

## **609 Automatic Shutoffs**

Section 609 is amended by the addition of a new paragraph following the exceptions to read:

Upon completion and before final approval of the air-moving system provided with the required smoke detectors, a performance test shall be performed to verify compliance of detector installation to manufacturers instructions and system compatibility as specified in this chapter. The permittee shall furnish the necessary test equipment and devices required to perform the tests and shall provide the jurisdiction with an accurate, completed, and signed test report. The report shall be on a form supplied by the jurisdiction or on a form containing equivalent information. At the discretion of the building official, the performance test may be required to be witnessed by a Building Department representative, performed by an approved third party testing agency.

## **806.4 – Vent Terminations / Type B or BW Gas Vents**

Section 806.4 is amended to read:

**806.4 Type B or BW Gas Vents.** Type B or BW gas vents with listed vent caps 12 inches (305 mm) in size or smaller shall be permitted to be terminated in accordance with Table 8-1, provided they are at least four (4) feet (1219 mm) from a vertical wall or similar obstruction. All other Type B gas vents shall terminate not less than two (2) feet (610 mm) above the highest point where they pass through the roof and at least two 2 feet (610 mm) higher than any portion of the building within ten (10) feet (3048 mm) of the vent.

## **910.1 – General**

Section 910.1 is amended by the addition of a new sentence to read:

The requirements of this section shall apply to air moving systems as defined by this code.

## **910.8 – Access**

Section 910.8, Exception #2 is amended to read:

**Exception 2:** A portable ladder may be used for access for furnaces on Group R, Division 3 and Division 4 occupancies and Group U, garages and carports.

Section 910.8 is amended by adding a new Exception 4 to read:

**Exception 4:** Furnaces installed on a roof not exceeding sixteen (16) feet in height above grade may be accessed by a portable ladder.

## **Chapter 10 – Boiler / Water Heaters (Deleted)**

Chapter 10 is deleted in its entirety except Section 1001

### **1001 – Scope/Applicability (Boiler/Water Heaters)**

Create a new Section 1001.1 which reads as follows:

**1001.1 Applicability.** For boilers and water heaters less than 120 gallon capacity, or a BTU input rating less than 200,000, or less than 160 pounds per square inch of pressure, see Chapter 5 of the Uniform Plumbing Code. For all other units, contact the Mechanical Section of the Nevada Division of Occupational Safety and Health, part of the Office of Business and Industrial Relations.

## **Table 11-1 Refrigerant Groups, Properties and Allowable Quantities**

Table 11-1 is amended by adding Footnote 14 applicable to the entire Table.

Footnote 14 – For occupancy Group I Division 1 and Division 2, the quantity of refrigerant in each system is limited to 50 percent of the respective amount listed in this table. Exceptions: Kitchens, laboratories and mortuaries.

## **Table 11-2 – Permissible Refrigeration Systems**

Table 11-2 is amended by deleting the row that pertains to Occupancy Group I, Division 1.1, and replacing it with the following:

<b>Occupancy Group And Division</b>	<b>High Probability System</b>	<b>Low Probability System</b>	<b>Machine Room</b>
I-1.1	Group A1 only 3	Any	Any

A new Footnote 3 is added to Table 11-2, reading as follows.

Footnote 3 – For occupancy Group I Division 1 and Division 2, the quantity of refrigerant in each system is limited to 50 percent of the respective amount listed in Table 11-1.

**Table 6-2-E-1 – Duct Gage Selection For Galvanized Steel**

Add a new appendix table 6-2-E-1 to read:

**Table 6-2-E-1 Duct Gage Selection For Galvanized Steel <sup>1</sup>**

Maximum 1" W.G. Static Positive and Negative		
Duct Diameter (inches)	Minimum Thickness Galvanized Iron (US Gauge/inches)	Minimum Thickness Aluminum (inches)
Less than 12	30/ .016	.016
12 – 16	28/ .019	.020
17 – 20	26/ .022	.025

Footnotes:

<sup>1</sup> Heating and Air Conditioning Units not exceeding 2000 cfm or one inch Water Gauge (WG) positive or negative pressure. Duct fittings shall be constructed of material not less than the gauge of the duct.

<sup>2</sup> Duct work and fittings larger than twenty inches shall be constructed to the gauging requirements of Table 6-2-E in Appendix A of the Uniform Mechanical Code.

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2002 OCT 29 A 11: 56

AFFP DISTRICT COURT  
Clark County, Nevada

AFFIDAVIT OF PUBLICATION

STATE OF NEVADA)  
COUNTY OF CLARK) SS:

Donna Stark, being 1st duly sworn, deposes and says:

That she is the Legal Clerk for the Las Vegas Review-Journal and the Las Vegas Sun, daily newspapers regularly issued, published and circulated in the City of Las Vegas, County of Clark, State of Nevada, and that the advertisement, a true copy attached for,

LV CITY CLERK  
2465900

2296311LV

was continuously published in said Las Vegas Review Journal and/or Las Vegas Sun in 1 edition(s) of said newspaper issued from 10/24/2002 to 10/24/2002, on the following days: OCT. 24, 2002

Signed: \_\_\_\_\_

*Donna Stark*

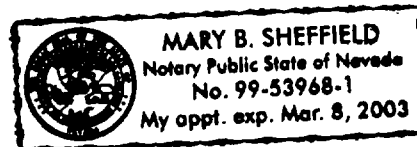
SUBSCRIBED AND SWORN BEFORE ME THIS THE \_\_\_\_\_

*25*

day of \_\_\_\_\_ 2002

*Mary B. Sheffield*

Notary Public



**BILL NO. 2002-108**

AN ORDINANCE TO ADOPT THE 2000 EDITION OF THE UNIFORM MECHANICAL CODE AND CERTAIN APPENDICES, TOGETHER WITH AMENDMENTS THERETO, AS THE CITY'S MECHANICAL CODE, AND TO PROVIDE FOR OTHER RELATED MATTERS.

Proposed by: Paul K. Wilkins, Director of Building and Safety

Summary: Adopts the 2000 Edition of the Uniform Mechanical Code and certain Appendices, together with amendments thereto, as the City's Mechanical Code.

At the City Council meeting of OCTOBER 2, 2002 BILL NO. 2002-108 WAS READ BY TITLE AND REFERRED TO A RECOMMENDING COMMITTEE

COPIES OF THE COMPLETE ORDINANCE ARE AVAILABLE FOR PUBLIC INFORMATION IN THE OFFICE OF THE CITY CLERK, 1ST FLOOR, 400 STEWART AVENUE, LAS VEGAS, NEVADA. PUB: October 24, 2002 LV Review-Journal

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CITY CLERK

2002 NOV 15 P 12: 32

AFFP DISTRICT COURT  
Clark County, Nevada

AFFIDAVIT OF PUBLICATION

STATE OF NEVADA)  
COUNTY OF CLARK) SS:

Donna Stark, being 1st duly sworn, deposes and says:

That she is the Legal Clerk for the Las Vegas Review-Journal and the Las Vegas Sun, daily newspapers regularly issued, published and circulated in the City of Las Vegas, County of Clark, State of Nevada, and that the advertisement, a true copy attached for,

LV CITY CLERK  
2493378

2296311LV

was continuously published in said Las Vegas Review Journal and/or Las Vegas Sun in 1 edition(s) of said newspaper issued from 11/09/2002 to 11/09/2002, on the following days: NOV. 9, 2002

BILL NO. 2002-108  
ORDINANCE NO. 5528

AN ORDINANCE TO ADOPT THE 2000 EDITION OF THE UNIFORM MECHANICAL CODE AND CERTAIN APPENDICES, TOGETHER WITH AMENDMENTS THERETO, AS THE CITY'S MECHANICAL CODE, AND TO PROVIDE FOR OTHER RELATED MATTERS.

Proposed by: Paul K. Wilkins, Director of Building and Safety

Summary: Adopts the 2000 Edition of the Uniform Mechanical Code and certain Appendices, together with amendments thereto, as the City's Mechanical Code.

The above and foregoing ordinance was first proposed and read by title to the City Council on the 2nd day of October, 2002, and referred to a committee for recommendation; thereafter the committee reported favorably on said ordinance on the 6th day of November, 2002, which was a regular meeting of said City Council; and that at said regular meeting the proposed ordinance was read by title to the City Council as first introduced and adopted by the following vote:

VOTING "AYE": Mayor Goodman and Councilmembers Reese, M. McDonald, L. Brown, Weekly, and Mack  
VOTING "NAY": NONE  
EXCUSED: L.B. McDonald

COPIES OF THE COMPLETE ORDINANCE ARE AVAILABLE FOR PUBLIC INFORMATION IN THE OFFICE OF THE CITY CLERK, 1ST FLOOR, 400 STEWART AVENUE, LAS VEGAS, NEVADA.  
PUB: November 9, 2002  
LV Review-Journal

Signed: Donna Stark

SUBSCRIBED AND SWORN BEFORE ME THIS THE 11

day of November 2002

Mary B. Sheffield  
Notary Public

